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1 GCACGAGGAACAGAACACTTTCTCATGTCCAGGGTCAGATTACAAGAGCACTCAAGACTT 60
61 TACTGACGAAAACCTCAGGAATCCTCTATCACAAAGAGGTTTGGCAACTAAACTAAGACA 120
121 TTAAAGGAAAATACCAGATGCCACTCTGCAGGCTGCAATAACTACTACTTACTGGATAC 180
181 ATTCAAACCCCTCCAGAATCAACAGTTATCAGGTAACCAACAAGAAATGCAAGCCGTCGAC 240
1 M Q A V D 5
241 AATCTCACCTCTGCGCCTGGGAACACCAGTCTGTGCACCAGAGACTACAAATCACCCAG 300
6 N L T S A P G N T S L C T R D Y K I T Q 25
301 GTCCTCTTCCCAGTCTCTACACTGTCTGTTTTTTGTGGACTTATCACAAATGGCCTG 360
26 V L F P L L Y T V L F F V G L I T N G L 45
361 GCGATGAGGATTTTCTTTCAAATCCGGAGTAAATCAAACTTTATTATTTTCTTAAGAAC 420
46 A M R I F F Q I R S K S N F I I F L K N 65
421 ACAGTCATTCTGATCTTCTCATGATTCTGACTTTTCCATTCAAATCTTAGTGATGCC 480
66 T V I S D L L M I L T F P F K I L S D A 85
481 AAATGGGAACAGGACCACTGAGAACTTTTGTGTGCAAGTTACCTCCGTCAATTTTAT 540
86 K L G T G P L R T F V C Q V T S V I F Y 105
541 TTCACAATGTATATCAGTATTTTCATTCTGGGACTGATAACTATCGATCGCTACCAGAAG 600
106 F T M Y I S I S F L G L I T I D R Y Q K 125
601 AccCACCAGGCCATTTAAACATCCAACCCCAAAAATCTCTTGGGGGCTAAGATTCTCTCT 660
126 T T R P F K T S N P K N L L G A K I L S 145
661 GTTGTCACTGGGCATTATGTTCTTACTCTCTTtGCCTAACATGATTCTGACCAACAGg 720
146 V V I W A F M F L L S L P N M I L T N R 165
721 CAGCCGAGAGACAGAATGTGaAGAAaTGCTCTTTTCTTAAATCAGAGTTCGGTCTAGTC 780
166 Q P R D K N V K K C S F L K S E F G L V 185
781 TGGCATGAAATAGTAAATTACATCTGTCAAGTCATTTTCTGGATTAATTTCTTAATTGTT 840
186 W H E I V N Y I C Q V I F W I N F L I V 205

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FIG.1A

841 ATTGTATGTTATACACTCATTACAAAAGAACTGTACCGGTACATCGTAAGAACGAGGGGT 900
 206 I V C Y T L I T K E L Y R S Y V R T R G 225

901 GTAGGTAAAGTCCCCAGGAAAAAGGTGAACGTCAAAGTTTTTCATTATCATTGCTGTATTC 960
 226 V G K V P R K K V N V K V F I I I A V F 245

961 TTTATTTGTTTTGTTCCTTTCCATTTTGCCCGAATTCCTTACACCTGAGCCAAACCCGG 1020
 246 F I C F V P F H F A R I P Y T L S Q T R 265

1021 GATGTCTTTGACTGCACtGcTGAAAATACTCTGTTCATGTGAAAGAGAGACTCTGTGG 1080
 266 D V F D C T A E N T L F Y V K E S T L W 285

1081 TTAATTCCTTAAATGCATGCCTGGATCCGTTTCATCTATTTTTTCCTTTGCAAGTCCTTC 1140
 286 L T S L N A C L D P F I Y F F L C K S F 305

1141 AGAAATTCCTTGATAAGTATGCTGAAGTGCCCAATTCGCAACATCTCTGTCCAGGAC 1200
 306 R N S L I S M L K C P N S A T S L S Q D 325

1201 AATAGGAAAAAGAACAGGATGGTGGTGAcCCAAATGAAGAGACTCCAATGTAACAAAT 1260
 326 N R K K E Q D G G D P N E E T P M * 343

1261 TAACTAAGGAATATTTCAATCTCTTTGTGTTCAGAACTCGTTAAAGCAAAGCGCTAAGT 1320

1321 AAAAATATTAAGTACGAAGAAGCAACTAAGTTAATAATAATGACTCTAAAGAAACAGAA 1380

1381 GATTACAAAAGCAATTTTCATTTACCTTTCCAGTATGAAAAGCTATCTTAAATATAGAA 1440

1441 AACTAATCTAAACTGTAGCTGATTAGCAGCAAAACAAACGACATCCAATTGTGTCATGCTG 1500

1501 CATGCAAACTACACAGAATTCATGTTTTGgCAGAGTTTTGGCAAAATGAGTAATCATAT 1560

1561 AATATTTACTGTAATTTTTAAATACATTATCGTTACAATTTTATTTTTTCATAATCAA 1620

1621 CTAAGGAAGAAGCATCAATTGGATATAATCTTCTTACCAAAAATGATAGTTAAATGTAT 1680

1681 ATATATCCTAGTCCCTAACCcAATCCTGACCTATTGGGATACTTATAAAAAATTAAGTA 1740

1741 AGTGGGATACACAAAAGAATAAATACTATTAACCTTTTCATTATTAGCcAAAAACCTAAGGG 1800

FIG. 1B

1801 ATTTAACTAATTGAAaCTGTATTTGATTGGACTTAATTTTTATGTTTATTAGAAGAT 1860
1861 AAAGATTTAAGAAGACCTTTACAATAAAGAGAAGAAATATCGAAGTCATTAATAAGGA 1920
1921 GACTTACTTTTATGACATTCTAATACTAAAAATATAGAAATATTTCTTAATTCTAGAG 1980
1981 AAAGTAGTTTTACTAATTTTTTACAACCTCAATAATACCATCACTGACACTTACCTTTAT 2040
2041 TAATTAGCTTCTAGAAAAATAGCTGCTAATTAGGTTAATGAACATTTACCTTAGTGAAAA 2100
2101 AAAaTTAATTAAATATGATTACAAAGTTGCACAGCATAACTACTGAGAGGAAAGTGATTG 2160
2161 ATCTGTTTGAATTACTTGTGTTGTAATTGGTGTGTATAAAATACAAATTTACATTAAACTC 2220
2221 TAAAtcattaaaAAAAAAAAAAAAAAAA 2247

FIG. 1C

FIG. 2

1	GGCACGAGCCACCTGCGTGGGCTCAGTCAGCCCCGGGGAGGCCATGAACGCCAC	60
1		M N A T 4
61	GGGGACCCCGTGGCCCCGAGTCTGCCAACAGCTGGCGGCCGGCGGGACAGCCGGCT	120
5	G T P V A P E S C Q Q L A A G G H S R L	24
121	CATTGTTCTGCACTACAACCACTCGGGCCGGCTGGCCGGGCGCGGGGGCCGGAGGATGG	180
25	I V L H Y N H S G R L A G R G G P E D G	44
181	CGGCCTGGGGGCCCTGCGGGGCTGTGCGTGCCGCCAGCTGCCTGGTGGTGTGGAGAA	240
45	G L G A L R G L S V A A S C L V V L E N	64
241	CTTGCTGGTGTGCGGGCCATCACCAGCCACATGCGGTGCAACGCTGGGTCTACTATTG	300
65	L L V L A A I T S H M R S Q R W V Y Y C	84
301	CCTGGTGAACATTACGATGAGTGACCTGCTCACGGGCGCGGCTACCTGGCCAACTGCT	360
85	L V N I T M S D L L T G A A Y L A N V L	104
361	GCTGTGCGGGGCCCGCACCTTCCGTCTGGCGCCCGCCAGTGGTTCCTACGGAAGGGCT	420
105	L S G A R T F R L A P A Q W F L R K G L	124
421	GCTCTTCACCGCCTGGCGGCCTCCACCTTCAGCCTGCTCTTCACTGCAGGGTTGCGCTT	480
125	L F T A L A A S T F S L L F T A G L R F	144
481	TGCCACCATGGTGCGCCGGTGGCCGAGAGCGGGGCCACCAAGACCAGCCGCGCTACGG	540
145	A T M V R P V A E S G A T K T S R V Y G	164
541	CTTCATCGGCCTCTGCTGGCTGCTGGCCGCGCTGCTGGGGATGCTGCCTTTGCTGGGCTG	600
165	F I G L C W L L A A L L G M L P L L G W	184
601	GAAGTGCCTGTGCGCCTTTGACCGCTGCTCCAGCCTTCTGCCCTCTACTCCAAGCGCTA	660
185	N C L C A F D R C S S L L P L Y S K R Y	204
661	CATCCTCTTTCGCTGGTGATCTTCGCCGGCGTCTGGCCACCATCATGGGCGCTATGG	720
205	I L F C L V I F A G V L A T I M G L Y G	224
721	GGCCATCTTCCGCTGGTGCAGGCCAGCGGGCAGAAGGCCCCACGCCAGCGGCCGCGG	780
225	A I F R L V Q A S G Q K A P R P A A R R	244

FIG.3A

781 CAAGGCCCGCCGCTGCTGAAGACGGTGCTGATGATCCTGCTGGCCTTCTTGGTGTGCTG 840
 245 K A R R L L K T V L M I L L A F L V C W 264

841 GGGACCACTCTTCGGGCTGCTGCTGGCCGACGTCTTTGGCTCCAACCTCTGGGCCAGGA 900
 265 G P L F G L L L A D V F G S N L W A Q E 284

901 GTACCTGCGGGGCATGGACTGGATCCTGGCCCTGGCCGTCTCAACTCGGCGGTCAACCC 960
 285 Y L R G M D W I L A L A V L N S A V N P 304

961 CATCATCTACTCCTTCCGACAGGGAGGTGTGCAGAGCCGTGCTCAGCTTCTCTGCTG 1020
 305 I I Y S F R S R E V C R A V L S F L C C 324

1021 CGGGTGTCTCCGGCTGGGCATGCGAGGGCCCGGGGACTGCCTGGCCCGGGCCGTGAGGC 1080
 325 G C L R L G M R G P G D C L A R A V E A 344

1081 TCACTCCGGAGCTTCACCAACGACAGCTCTCTGAGGCCAAGGACAGCTTTCGCGGCTC 1140
 345 H S G A S T T D S S L R P R D S F R G S 364

1141 CCGCTCGCTCAGCTTTCGGATGCGGGAGCCCTGTCCAGCATCTCCAGCGTGCGGAGCAT 1200
 365 R S L S F R M R E P L S S I S S V R S I 384

1201 CTGAAGTTGAGTCTTGCGTGTGGATGGTGCAACCACCGGGTGCCTGCCAGGCAGGCCCT 1260
 385 * 385

1261 CCTGGGGTACAGGAAGCTGTGTGCACGCAACCTCGCCCTGTATGGGGAGCAGGGAACGGG 1320

1321 ACAGGCCCCCATGGACTTGCCCGGTGGCCTCTCGGGGCTTCTGACGCCATATGGACTTGC 1380

1381 CCATTGCCTATGGCTCACCTGGACAAGGAGGCAACCAACCCCACTCCCGTAGGAGCAG 1440

1441 AGAGCACCTCGTGTGGGGGCGAGTGGGTCCCCACAACCCCGCTTCTGTGTGATTCTGG 1500

1501 GGAAGTCCCGCCCTCTCTGGGCCTCAGTAGGGCTCCAGGCTGCAAGGGGTGGACTGT 1560

1561 GGGATGCATGCCCTGGCAACATTGAAGTTCGATCATGGTAAAAAAAAAAAAAAAAAAAAA 1620

1621 AAAAAAAAAAAAAAAAAA 1637

FIG.3B

FIG. 4